

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
24 March 2005 (24.03.2005)

PCT

(10) International Publication Number
WO 2005/025950 A2

(51) International Patent Classification⁷:

B60S

Leslie [CA/CA]; 76 Gladman Avenue, Newmarket, Ontario L3Y 1W6 (CA).

(21) International Application Number:

PCT/CA2004/001625

(74) Agents: IMAI, Jeffrey, T. et al.; Magna International Inc., 337 Magna Drive, Aurora, Ontario L4G 7K1 (CA).

(22) International Filing Date:

15 September 2004 (15.09.2004)

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(30) Priority Data:

60/503,067 15 September 2003 (15.09.2003) US

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

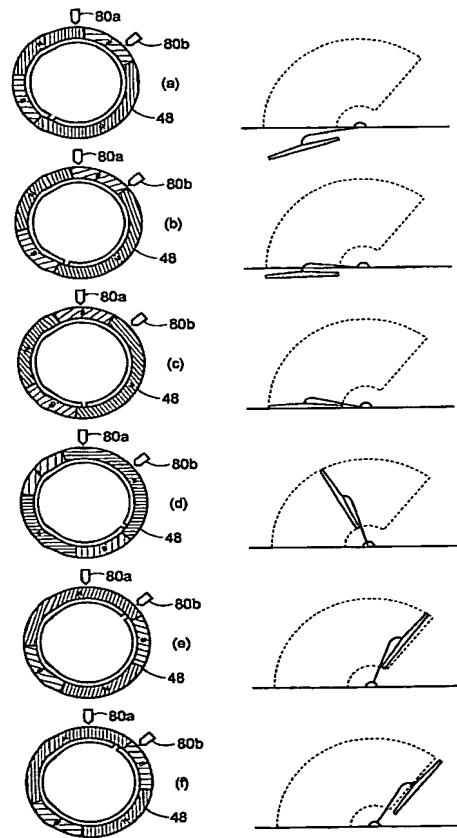
(71) Applicant (for all designated States except US): INTIER AUTOMOTIVE CLOSURES INC. [CA/CA]; 521 Newpark Boulevard, Newmarket, Ontario L3Y 4X7 (CA).

(72) Inventor; and

(75) Inventor/Applicant (for US only): MARENTETTE,

[Continued on next page]

(54) Title: REVERSING-MOTOR WINDSHIELD WIPER SYSTEM



(57) Abstract: A reversing wiper motor system has a first detector including a detectant which rotates in synchronism with the wiper. The detector physically identifies a plurality of distinct angular zones across the entire range of motion of the wiper, including a wiper park zone, a wiping zone, and wiper out-of-bound zone. A second detector detects incremental movement of the wiper within any given zone. Control circuitry controls the direction of the motor based on the detected zone and the incremental motion of the wiper therein. The system enables the wiper to be located upon power-up.

WO 2005/025950 A2

BEST AVAILABLE COPY



European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

- *without international search report and to be republished upon receipt of that report*